

REMARKS**Rejection of Claims 10 and 26 Under 35 U.S.C. § 112(2)**

The Patent Office (PTO) rejected claims 10 and 26 under 35 U.S.C. § 112(2). Applicant has amended claims 10 and 26 to provide antecedent basis for "monitor" and thus this rejection should be withdrawn.

Rejection of Claims 1-10 Under 35 U.S.C. § 103(a) - Nanaji

The PTO rejected claims 1-10 under 35 U.S.C. § 103(a) as being obvious in view of U.S. Patent No. 6,336,479 to Nanaji (hereinafter "Nanaji"). Applicant has amended claim 1, the independent claim from which claims 2-9 depend either directly or indirectly, to clarify the present invention and to show that the present invention is not obvious in view of Nanaji.

Before addressing the present invention and how it distinguishes over Nanaji, Applicant will explain the teachings of Nanaji. Nanaji is directed to a leak detection system for detection of leaks in the vapor return passage between the nozzle (16) and the underground storage tank (40) (see Figure 3). There are several test embodiments of Nanaji.

Nanaji

Starting at column 5, line 50 of Nanaji, a first test embodiment is discussed. The test consists of opening the vapor valve (51), as illustrated in Figure 3, and activating the vapor pump (52) to a predefined level. The pressure in the vapor return line between the nozzle valve (17) and the UST (40) is monitored to using pressure sensor (71) and compared against pressure value readings stored in memory. If the monitored pressure readings differ from those in memory, a leak exists. Note that the vapor pump (52) was active for causing the vapor return line (34) to recover air as part of the test.

A second test in Nanaji is disclosed at column 6, lines 20-36, where vapor valve (51) is closed and vapor valve (53) is opened. The vapor pump (52) is activated just like in the first embodiment discussed above to detect if a leak exists between the vapor valve (51) and the UST (40), a more isolated portion of the vapor return line (34). Again, the vapor pump (52) was active for causing the vapor return line (34) to recover air as part of the test.

A third test in Nanaji is disclosed at column 6, lines 37-47, where the vapor pump (52) is again used to pressurize a portion of the vapor return line (34). The leak is detected using a pressure decay evaluation by determining if the pressure in the vapor return line is maintained over a period of time.

Applicant has amended claim 1 to clarify the present invention to make clear that the leak detection system detects a leak in a vapor return line when the dispensing point(s) coupled to the air-flow sensor is idle without recovering air or vapor. This is supported by the specification of the application in the third to the last sentence in paragraph 0045 on page 13, and the third sentence of paragraph 0062. This is important since the invention detects a leak by detection of vapor or air flow in the air-flow sensor when the dispensing points are idle without having to perform an active test by recovering air or vapor. Nanaji does not conduct a leak test without recovering air or vapor using the vapor pump (52).

Further, the present invention detects when the dispensing point(s) coupled to the air-flow sensor is idle, and only then detects if air or vapor flow is detected by the air-flow sensor. Nanaji does not explicitly disclose checking the dispensing points to determine their status before performing its tests.

In order to maintain an obviousness rejection, the reference or references combined must teach or suggest all of the claimed elements and/or limitation of the claim at issue. MPEP § 2143.03. Therefore, since Nanaji does not teach or suggest performing a leak test without recovering air or vapor, Nanaji cannot be used to maintain the obviousness rejection of claims 1-10.

Although the obviousness rejection has been overcome as discussed above, other claims in the rejected claims 1-10 are also worthy of note.

Claim 6 detects if the vapor or air flow is in the forward or reverse direction. As discussed in the specification of the application, detection of forward or reverse vapor flow indicates whether air or vapor is being ingressed or egressed due to the leak. (See Specification, paragraph 0014, for example). The pressure sensors in Nanaji do not detect the direction of air or vapor flow and thus do not teach or suggest this claim limitation in claim 6.

Claim 10 claims that the control system is a monitor that is coupled to a POS, wherein communication by the monitor with the POS allows the monitor to determine when the

dispensing point(s) coupled to the air-flow sensor is idle. This limitation in claim 10 is not taught or suggested by Nanaji.

Rejection of Claims 11-16 Under 35 U.S.C. § 103(a) - Nanaji

The PTO rejected claims 11-16 under 35 U.S.C. § 103(a) as being obvious in view of Nanaji. Applicant has amended claim 11, the independent claim from which claims 12-16 depend either directly or indirectly, similar to that of claim 1 to clarify the present invention and to show that the present invention is not obvious in view of Nanaji. Thus for the same reasons as discussed above, claims 11-16 are not obvious in view of Nanaji. Thus, these arguments need not be repeated again here.

Although the obviousness rejection has been overcome as discussed above, other claims in the rejected claims 11-16 are also worthy of note.

Claim 15 contains the step of determining if the vapor or air flow is in the forward or reverse direction. As discussed in the specification of the application, detection of forward or reverse vapor flow indicates whether air or vapor is being ingressed or egressed due to the leak. (See Specification, paragraph 0014, for example). The pressure sensors in Nanaji do not detect the direction of air or vapor flow and thus do not teach or suggest this claim limitation in claim 15.

Claim 16 claims the step of the monitor (control system) communicating with a POS to determine when the dispensing point(s) coupled to the air-flow sensor is idle. This limitation in claim 16 is not taught or suggested by Nanaji.

Rejection of Claims 17-26 Under 35 U.S.C. § 103(a) - Nanaji

The PTO rejected claims 17-26 under 35 U.S.C. § 103(a) as being obvious in view of Nanaji. Applicant has amended claim 17, the independent claim from which claims 18-26 depend either directly or indirectly, similar to that of claim 1 to clarify the present invention and to show that the present invention is not obvious in view of Nanaji. Thus for the same reasons as discussed above, claims 17-26 are not obvious in view of Nanaji. Thus, these arguments need not be repeated again here.

Although the obviousness rejection has been overcome as discussed above, other claims in the rejected claims 17-26 are also worthy of note.

Claim 22 detects if the vapor or air flow is in the forward or reverse direction. As discussed in the specification of the application, detection of forward or reverse vapor flow indicates whether air or vapor is being ingressed or egressed due to the leak. (See Specification, paragraph 0014, for example). The pressure sensors in Nanaji do not detect the direction of air or vapor flow and thus do not teach or suggest this claim limitation in claim 22.

Claim 26 claims that the control system is a monitor that is coupled to a POS, wherein communication by the monitor with the POS allows the monitor to determine when the dispensing point(s) coupled to the air-flow sensor is idle. This limitation in claim 26 is not taught or suggested by Nanaji.

Rejection of Claims 27-32 Under 35 U.S.C. § 103(a) - Nanaji

The PTO rejected claims 27-32 under 35 U.S.C. § 103(a) as being obvious in view of Nanaji. Applicant has amended claim 27, the independent claim from which claims 28-32 depend either directly or indirectly, similar to that of claim 1 to clarify the present invention and to show that the present invention is not obvious in view of Nanaji. Thus for the same reasons as discussed above, claims 27-32 are not obvious in view of Nanaji. Thus, these arguments need not be repeated again here.

Although the obviousness rejection has been overcome as discussed above, other claims in the rejected claims 27-32 are also worthy of note.


Claim 31 contains the step of detecting if the vapor or air flow is in the forward or reverse direction. As discussed in the specification of the application, detection of forward or reverse vapor flow indicates whether air or vapor is being ingressed or egressed due to the leak. (See Specification, paragraph 0014, for example). The pressure sensors in Nanaji do not detect the direction of air or vapor flow and thus do not teach or suggest this claim limitation in claim 31.

Claim 32 claims the step of the monitor (control system) communicating with a POS to determine when the dispensing point(s) coupled to the air-flow sensor is idle. This limitation in claim 32 is not taught or suggested by Nanaji.

Respectfully submitted,

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